1. Consider the bet that all three dice will turn up sixes at least once in \( n \) rolls of three dice. How does the probability of the event that all three dice turn up sixes at least once depend on \( n \)? Determine the smallest value of \( n \) necessary for a favorable bet.

2. A die is loaded in such a way that the probability of each face turning up is proportional to the number of dots on the face. What is the probability of getting an even number in one throw?

3. Argue that, for any two events \( E \) and \( F \),
   \[ P(E \cap F) \geq P(E) + P(F) - 1. \]

4. In a fierce battle, not less than 70 percent of the soldiers lost one eye, not less than 75 percent lost one ear, not less than 80 percent lost one hand, and not less than 85 percent lost one leg. What is the minimal possible percentage of those who simultaneously lost one ear, one eye, one hand, and one leg?